# Quality of Post-Discharge Follow-Up in Patients Admitted to TJUH with Intermediate High Risk Pulmonary Embolism

D. Kramer, P. Kirupaharan, M. Flamenbaum, M. Scharf
Jane and Leonard Korman Respiratory Institute at Thomas Jefferson University, Philadelphia, PA

## Problem Definition

- Our institution has developed a multidisciplinary pulmonary embolism response team (PERT) to help in the management of patients with intermediate high risk pulmonary embolism
- While the PERT focus is on acute inpatient management, it is important that PERT patients have close follow-up to monitor for known future complications including thromboembolic pulmonary hypertension (CTEPH) and chronic pulmonary embolism syndrome
- CTEPH, in particular, is a potentially treatable disease with significant morbidity if left untreated
- Therefore, an underappreciated and important aspect of the PERT team should be the coordinated follow-up and long term care of these patients
- We wanted to better understand how consistently our patients with intermediate high risk PE had pulmonary and/or vascular medicine (JATS) outpatient follow-up with repeat TTE performed at 3 months

## Aims For Improvement

- To evaluate the rate of outpatient follow-up and evaluation after intermediate high risk PE to identify patients with higher risk of long term morbidity and mortality

## Intervention

- We reviewed 72 patients based on initial date of PERT evaluation between the dates of January 1st, 2019 – December 31st, 2019
- We determined which patients with RV strain on echocardiography had appropriate outpatient follow-up and TTE within 3 months post-discharge

## Measurement and Results

- Of 72 patients with PERT activation, only 48 had right ventricular (RV) strain by TTE
- Patients with CTA evidence of RV strain without corroborating evidence on TTE were excluded in our follow-up data as their risk of CTEPH was likely negligible

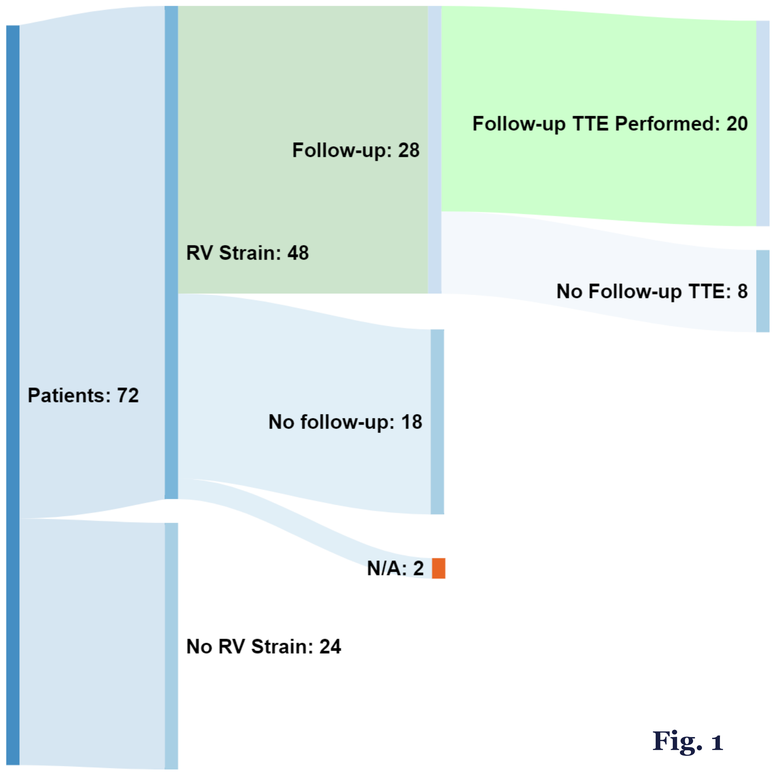


**Fig. 1**

## Lessons Learned

- A significant percentage (33.3%) of PERTs are ordered based on CTA findings of RV strain that end up not being confirmed on echocardiography
- Follow-up with Pulmonary and/or JATS for the higher risk patients with RV strain on TTE was 60.8%, with 71.4% having repeat TTE performed at 3 months

## Next Steps

- Determine if patients without follow-up had appointments made on discharge
- We would then tailor our intervention to the major driving factor prohibiting follow-up
  - No appointment vs. non-compliance would require different interventions

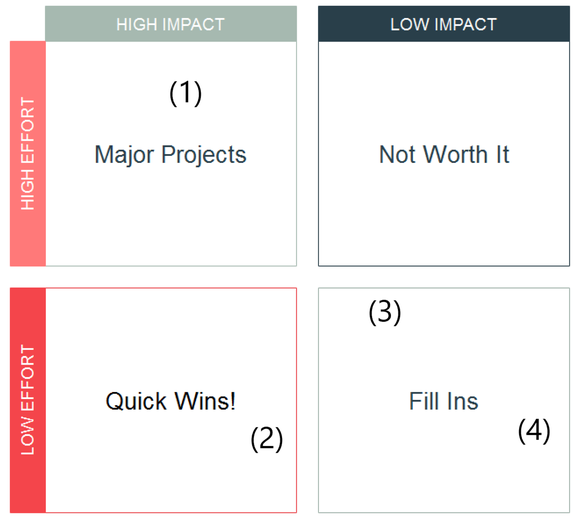


**Fig. 2**

1. PERT Coordinator with phone call to patient within a few days post-discharge
2. Pulmonary fellow messages office on Day 1 of PERT consult
3. Formal education to patient about expectations and CTEPH on day of discharge
4. Script for 3 month TTE handed to patient prior to discharge

## References

1. Kim NH, Delcroix M, Jais X, et al. Chronic thromboembolic pulmonary hypertension. Eur Respir J 2019;53(1). 10.1183/13993003.01915-2018
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